IN THE CLAIMS

Please amend the claims as follows:

Claims 1-32 (Cancelled).

Claim 33 (Currently Amended): A monitoring device for a multichannel numeric switch, the switch including a connecting interface for connecting physical connection circuits to a transmission medium, defining at least one of source and destination ports, the connecting interface including a physical layer and a logical layer, and a processing unit for carrying out selective switching of multifield data grids between the different ports, the monitoring device comprising:

a probe unit coupled selectively to the connecting interface, configured to observe data between the physical layer and the logic logical layer; and

a monitoring unit configured to analyze contents of at least part of the data grids probed by the probe unit, and configured to generate and output a warning signal message to the logical layer when the part analyzed does not meet a selected condition, and trigger rejection of a grid probed by the probe unit upon transmission of the warning message.

Claim 34 (Previously Presented): The device according to claim 33, wherein the monitoring unit is further configured to analyze contents of at least part of a field of the data grids probed by the probe unit.

Claim 35 (Previously Presented): The device according to claim 34, wherein the monitoring unit is further configured to analyze contents of at least part of a field of each grid probed by the probe unit.

Claim 36 (Currently Amended): The device according to claim 33, wherein the probe unit is configured to probe grids including at least one of a logic channel field, ~~one~~ a physical channel field, and a data field.

Claim 37 (Previously Presented): The device according to claim 33, wherein the probe unit is configured to probe grids including at least one of a grid start field, a destination port address field, a source port address field, and a data field.

Claim 38 (Previously Presented): The device according to claim 33, wherein the probe unit is configured to probe grids including at least one of a virtual path identifier field, a virtual channel identifier field, a payload type field, and a data field.

Claim 39 (Currently Amended): The device according to claim 36,

wherein the monitoring unit comprises a table of correspondence specifying for each port connected to the connection circuits a list of authorized grids comprising at least the ports with which the respective port can exchange the grids, and wherein the monitoring unit is further configured to compare contents of this table of correspondence to that of at least one of the fields of the grid being transferred, to generate the warning ~~signal~~ message when its field or fields analyzed designate a port that does not have a correspondence with the source port transmitting the grid, this correspondence forming a chosen condition.

Claim 40 (Currently Amended): The device according to claim 37,

wherein the monitoring unit comprises a table of correspondence specifying for each port connected to the connection circuits a list of authorized grids comprising at least the ports with which the respective port can exchange the grids, and wherein the monitoring unit

is further configured to compare contents of this table of correspondence to that of at least

one of the fields of the grid being transferred, to generate the warning ~~signal~~ message when

its field or fields analyzed designate a port that does not have a correspondence with the

source port transmitting the grid, this correspondence forming a chosen condition.

Claim 41 (Currently Amended): The device according to claim 38,

wherein the monitoring unit comprises a table of correspondence specifying for each

port connected to the connection circuits a list of authorized grids comprising at least the

ports with which the respective port can exchange the grids, and wherein the monitoring unit

is further configured to compare contents of this table of correspondence to that of at least

one of the fields of the grid being transferred, to generate the warning ~~signal~~ message when

its field or fields analyzed designate a port that does not have a correspondence with the

source port transmitting the grid, this correspondence forming a chosen condition.

Claim 42 (Previously Presented): The device according to claim 39, wherein the

analyzed field or fields is or are chosen from at least the logic channel field and the physical

channel field.

Claim 43 (Previously Presented): The device according to claim 40, wherein the

analyzed field or fields is or are chosen from at least the destination port address field of the

grid and the source port address field of the grid.

Claim 44 (Previously Presented): The device according to claim 41, wherein the

analyzed field or fields is or are chosen from at least the virtual path identifier field and the

virtual channel identifier field.

Claim 45 (Previously Presented): The device according to claim 39, wherein the table of correspondence includes for each source or destination port at least one list of associated destination addresses, a list of associated source addresses, a list of grid flux types authorized on the port, accompanied by temporal features of each of the fluxes, and a list of the grid lengths authorized to circulate on the port.

Claim 46 (Previously Presented): The device according to claim 45, wherein the table of correspondence is stored in a modifiable memory selected from at least a live memory, a flash memory, and an assembly of registers each associated with a port and having an individually configurable content.

Claim 47 (Previously Presented): The device according to claim 44, wherein the memory is configured to permit access by writing and/or reading for monitoring.

Claim 48 (Previously Presented): The device according to claim 42, wherein the monitoring unit is configured to effect its comparison on the logic channel field, then on the physical channel field.

Claim 49 (Previously Presented): The device according to claim 43, wherein the monitoring unit is configured to effect its comparison on the destination address field, then on the source address field.

Claim 50 (Previously Presented): The device according to claim 44, wherein the monitoring unit is configured to effect its comparison on the virtual path identifier field, then on the virtual channel identifier field.

Claim 51 (Currently Amended): The device according to claim 39, wherein the monitoring unit is further configured to determine whether contents of the data field of the grid probed by the probe unit has a predetermined format, and to generate the warning ~~signal~~ message when at least part of the data field does not verify the format, this verification of format forming the chosen condition.

Claim 52 (Currently Amended): The device according to claim 39, wherein the monitoring unit is further configured to determine a type of grid probed by the probe unit by analyzing contents of ~~it's~~ a type field of the grid, to generate the warning ~~signal~~ message when the type field does not correspond to ~~the~~ a predetermined type ~~associate~~ associated with the port having transmitted the grid, this verification of type forming the chosen condition.

Claim 53 (Currently Amended): The device according to claim 39, wherein the monitoring unit is further configured to measure outputs of grids probed by the probe unit, according to ~~their~~ a type for the grids, and to generate the warning ~~signal~~ message when the measured output associated with ~~its~~ the type for the grids does not correspond to a predetermined output, this verification of output forming the chosen condition.

Claim 54 (Currently Amended): The device according to claim 39, wherein the monitoring unit is further configured to measure for each source port a temporal distance between grids of a same type which it has transmitted, and to generate the warning ~~signal~~

message when the temporal distance measured associated with its type does not correspond to a predetermined distance, this verification of distance forming the chosen condition.

Claim 55 (Currently Amended): The device according to claim 39, wherein the monitoring unit is further configured to measure for each destination port a temporal distance between grids of a same type that it has received, and to generate the warning ~~signal~~ message when the distance measured associated with its type does not correspond to a predetermined temporal distance, this verification of distance forming the chosen condition.

Claim 56 (Currently Amended): The device according to claim 36, wherein the monitoring unit is further configured to measure a length of each grid probed by the probe unit, and to generate the warning ~~signal~~ message when its measured length does not correspond to a predetermined length associated with its type, this verification of length forming the chosen condition.

Claim 57 (Currently Amended): The device according to claim 36, wherein the monitoring unit is configured to make compatible at each port a number of grids ~~that it~~ the port transmits and a number of grids ~~that it~~ the port receives, ~~so as~~ to estimate for each port a rate of use, and to trigger invalidation of a connection between a port and the connection circuits to which [[it]] the port is connected when [[its]] the estimated rate of use for the port does not correspond to a predetermined rate associated with the type of grid of [[this]] the port.

Claim 58 (Currently Amended): The device according to claim 33, wherein the monitoring unit is configured to make ~~compatible~~ each generation of [[a]] the warning ~~signal~~

message compatible ~~associated~~ with [[each]] an associated port and to trigger invalidation of

[[the]] a connection between [[a]] the port and ~~to trigger invalidation of the connection~~

~~between a port and~~ the connection circuits when a number of generated warning ~~signals~~

~~generated~~ messages made compatible for [[this]] the port is higher than a threshold.

Claim 59 (Currently Amended): The device according to claim 33, wherein the

monitoring unit is configured to make ~~compatible~~ each generated warning ~~signal generated~~

~~associated~~ message compatible with [[each]] an associated port and to trigger rejection by the

processing unit of the grid seen by the probe unit[[,]] when a number of generated warning

~~signals generated~~ messages made compatible for [[a]] the port is higher than a threshold.

Claim 60 (Currently Amended): The device according to claim 33, wherein the

monitoring unit is configured to make ~~compatible~~ each generated warning ~~signal generated~~

~~associated~~ message compatible with an associated [[each]] port and to trigger rejection by the

processing unit of the grid probed by the probe unit[[,]] when a number of generated warning

~~signals generated~~ messages made compatible for [[a]] the port is higher than a threshold.

Claim 61 (Cancelled).

Claim 62 (Currently Amended): The device according to claim 33, wherein the

monitoring unit is configured, upon transmission of [[a]] the warning ~~signal~~ message, to

trigger the processing unit to reject the grid probed by the probe unit.

Claim 63 (Currently Amended): The device according to claim 61, wherein the

monitoring unit is configured to make ~~compatible~~ each rejection ~~associated~~ compatible with

[[each]] an associated port and to trigger invalidation of the connection between a selected

port and the connecting circuits when a number of rejections made compatible for the

selected port is higher than a threshold.

Claim 64 (Previously Presented): A switch, comprising the device according to claim

33.

Claim 65 (Previously Presented): A communication installation, comprising at least

one switch equipped with at least one device according to claim 33, the ports of the switch

being connected to machines and computers.

Claim 66 (Currently Amended): The communication installation according to

claim 65, wherein [[it]] the communication installation is implanted in an airship comprising

a flight management computer and a flight control computer.

Claim 67 (Currently Amended): A monitoring device for a multichannel numeric

switch, the switch including a connecting interface for connecting physical connection

circuits to a transmission medium, defining at least one of source and destination ports, and a

processing unit for carrying out selective switching of multifield data grids between the

different ports, the monitoring device comprising:

a probe unit coupled selectively to the connecting interface; and

a monitoring unit configured to analyze contents of at least part of the data grids

probed by the probe unit, and configured to generate a warning signal message when the part

analyzed does not meet a selected condition,

wherein the probe unit is configured to probe grids including at least one of a logic

channel field, one physical channel field, and a data field,

wherein the monitoring unit comprises a table of correspondence specifying for each

port connected to the connection circuits a list of authorized grids comprising at least the

ports with which the respective port can exchange the grids, and

wherein the monitoring unit is further configured to compare contents of this table of

correspondence to that of at least one of the fields of the grid being transferred, to generate

the warning ~~signal~~ message when its field or fields analyzed designate a port that does not

have a correspondence with the source port transmitting the grid, this correspondence

forming a chosen condition.

Claim 68 (Previously Presented): The monitoring device according to Claim 33,

wherein

the monitoring unit is further configured to determine whether an address of a

destination grid of the data does not correspond to the port analyzed by the respective

monitoring unit.

Claim 69 (Currently Amended): The monitoring device according to Claim 33,

wherein

the probe unit is further configured to separately observe data transmitted from the

physical layer to the ~~logic~~ logical layer, and data transmitted from the ~~logic~~ logical layer to

the physical layer.